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|           |                  | (56) 参考文献 | 特開 昭60-104412 (J P, A)<br>特開 昭58-110787 (J P, A)<br>特開 昭59-199228 (J P, A)<br>特開 昭62-103219 (J P, A)<br>実開 昭58-149235 (J P, U) |

(54) 【発明の名称】 車両用ウィンドウの製造方法

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(57) 【特許請求の範囲】

【請求項1】 ウインドゥプレートの外周縁裏面の不透明着色層にウインドゥ取付け用の液状接着剤を直接接合させて車輛の窓開口パネルに取り付ける車輛用ウィンドゥの製造方法において、  
表裏両面と所定の外周縁形状を有し、外周縁の裏面に周縁方向に沿って所定の幅で不透明な着色層(5)を形成した透明なウインドゥプレート(1)の外周縁の周縁方向に沿って表裏両面に前記着色層(5)の幅よりも狭い幅に第一の接着剤層(6)、及び前記着色層(5)の幅の範囲内で第一の接着剤層(6)よりもウインドゥプレート(1)の面中心側に離れた位置の裏面で止め具(3)の装着位置に第二の接着剤層(7)を、それぞれの接着剤層(6,7)が非連続で分離した位置に形成し、止め具(3)とウインドゥプレート(1)とを、射出成

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形成(10,13)内で第二の接着剤層(7)が止め具(3)の基部と対向するように所定位置にセットし、射出成型(10,13)内でウインドゥプレート(1)の外周縁に沿って長手方向に形成されたキャビティ空間に液状合成樹脂を射出、充填して枠部(2)と、該枠部(2)を形成する液状合成樹脂の一部をウインドゥプレート(1)の裏面側の型面に形成された凹溝(11)の連絡流路を介して前記止め具(3)まで流動させて少なくとも止め具(3)の基部の周縁を埋め込んで覆う保持部(4)と連結部(8)とを連続して一体に形成するとともに、連結部(8)を除く枠部(2)と保持部(4)をそれぞれの接着剤層(6,7)でウインドゥプレート面に固着し、  
その後、枠部(2)と保持部(4)との間の連結部(8)をウインドゥプレート(1)から除去して前記着

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色層（５）を露出させるようにしたことを特徴とする車両用ウィンドウの製造方法。

【発明の詳細な説明】

産業上の利用分野

本発明は、車体パネルの窓開口部に液状の接着剤で固定装着される車両用ウィンドウの製造方法に関するものである。

従来の技術

従来、この種の車両用ウィンドウとしては、合成樹脂で周縁に枠部を一体的に成形したウィンドウプレートの裏面内寄りに複数個の止め具を装着し、その止め具を車体パネルの窓開口部に設けた止め孔に嵌入係合させると共に、ウィンドウプレート裏面と車体パネルとの間に介在する液状のウィンドウ取付け用接着剤で固着することにより車体パネルに取り付けるものが知られている（特開昭63-49519号）。

上述した止め具を有するウィンドウを製造するには、ウィンドウプレートの周縁に成形する枠部と同じ液状の合成樹脂を用いて、枠部の成形と同時に、ファスナー、その他の止め具を止着する保持部を連続させて共に形成できれば好ましい。然し、その連結部を枠部とファスナー保持部との間に残存させると、第11図で示すようにウィンドウプレートWの裏面と車体の窓開口部のボディパネルBとの間に介在させる液状のウィンドウ取付け用接着剤Eが比較的高い粘度のものであるため、この接着剤の中に埋め込まれる形になる連結部Jの基部隅角個所に接着剤Eがまわり込んでゆきにくいので、枠部からファスナー保持部にまで連続して微小な隙間Gが残る。その接着剤Eはシール材も兼ねるものであり、この接着剤Eと連結部Jとの間に隙間Gが残るウィンドウプレートWの表面側から裏面側に流れ込む雨水等が枠部を経て止め具側に流入することにより車内側に進入してしまうという不具合を有する。

このような不具合を解消するためには、上述した連結部を枠部並びに止め具の保持部と一体に連続して樹脂成形した後に除去すれば望ましいが、その連結部が枠部の成形箇所並びに止め具の装着箇所周辺でウィンドウプレート裏面に予め塗布する接着剤で覆りと固着されてしまうと成形後には簡単に除去することができない。

発明が解決しようとする課題

本発明は、液状の合成樹脂を用いて射出成形により枠部並びに止め具の保持部を枠部と一体に連続させて形成すると共に、それらを連続する連結部を簡単に除去し得て、液状のウィンドウ取付け用接着剤で車体のボディパネルに固着したとき良好なシール性が確保できる車両用ウィンドウの製造方法を提供することを目的とする。

課題を解決するための手段

本発明に係る車両用ウィンドウの製造方法においては、表裏両面と所定の外周縁形状を有し、外周縁の裏面に周縁方向に沿って所定の幅で不透明な着色層を形成し

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た透明なウィンドウプレートの外周縁の周縁方向に沿って表裏両面に前記着色層の幅よりも狭い幅に第一の接着剤層、及び前記着色層の幅の範囲内で第一の接着剤層よりもウィンドウプレートの面中心側に離れた位置の裏面で止め具の装着位置に第二の接着剤層を、それぞれの接着剤層が非連続で分離した位置に形成し、

止め具とウィンドウプレートとを、射出成型型内で第二の接着剤層が止め具の基部と対向するように所定位置にセットし、射出成型型内でウィンドウプレートの外周縁に沿って長手方向に形成されたキャビティ空間に液状合成樹脂を射出、充填して枠部と、該枠部を形成する液状合成樹脂の一部をウィンドウプレートの裏面側の型面に形成された凹溝の連絡流路を介して前記止め具まで流動させて少なくとも止め具の基部の周縁を埋め込んで覆う保持部と連結部とを連続して一体に形成するとともに、連結部を除く枠部と保持部をそれぞれの接着剤層でウィンドウプレート面に固着し、

その後枠部と保持部との間の連結部をウィンドウプレートから除去して前記着色層を露出させるようにされている。

作用

この車両用ウィンドウの製造方法では、枠部と止め具をウィンドウプレートに固着するための保持部とを連結部で連続させて枠部と同時に形成するから樹脂成形工程を簡略化できるばかりでなく、ウィンドウプレートの面には連結部の成形箇所を除いて枠部の成形箇所並びに保持部の成形箇所と夫々嵌立させて予め接着剤層を形成してあるから、枠部及び保持部はウィンドウプレートに接着剤層でしっかりと固着されるが、連結部はウィンドウプレートに固着されないことにより簡単に除去して、不透明着色層を露出させることができる。

実施例

以下、第1～10図を参照して説明すれば、次の通りである。

このウィンドウの製造方法は第1図で示すように好適な実施例として透明なガラス製の或いは同様の合成樹脂製で外周縁の裏面に所定の巾で周縁に沿って不透明着色層5を形成したウィンドウプレート1を用い、その周縁に合成樹脂の射出成形で枠部2を一体的に形成すると共に、不透明着色層5の範囲内で枠部2からウィンドウプレート1の面中心側に離れた位置にファスナー等の止め具3をウィンドウプレート1の裏面に固着するための樹脂成形された保持部4を形成することにより、この止め具3とウィンドウ取付け用接着剤とで車体パネルに固定装着するウィンドウを製造するのに適用されている。この枠部2並びに止め具3用の保持部4を形成するには射出樹脂の流動抵抗が少ない反応射出成形（RIM成形）を適用するのが好ましいが、或いはこれに代えて形状によっては加熱軟化させて液状にした熱可塑性合成樹脂を使用する通常の射出成形を適用することもできる。また、前

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述したようにウインドゥプレート1の外周縁の裏面には枠部2の裏面側の成形個所並びに止め具3の装着個所が表面側から目視されないよう不透明な塗膜をプリントすることにより所望な巾と面積を有する不透明着色層5が予め設けられていて、更に枠部2の成形個所には表裏両面に第1の接着剤層6、並びに止め具3の装着予定個所には裏面に第1の接着剤層の接着剤と同じ接着剤により第2の接着剤層7が夫々非連続で独立させて塗布によって形成されている。

なお、第1図に示すようにウインドゥプレート1の裏面における止め具3の装着位置は不透明着色層5の範囲内であり、従って、第2の接着剤層7も止め具3の位置に対応して、不透明着色層5の範囲内に形成されていることになる。ウインドゥプレート1の裏面に装着する止め具3の例としては、第2図で示すように車体の窓開口の車体パネルBに係止するアンカー状のクリップ部3aと略円板状で、その円周縁の回りに複数個の貫通孔3b, 3b...を有する基板部3cとを合成樹脂により一体成形したファスナーを用いるのが好ましい。或いはファスナーとウインドゥプレート1とを連結するナット等のコネクターを取り付けることもできる。また、この枠部2並びに止め具3をウインドゥプレートの裏面に固着するための保持部4を射出成形により形成する合成樹脂としてはPC、PVA、EVA、アイオノマー等の熱可塑性合成樹脂やPI等の熱硬化性合成樹脂を用いることができる。その枠部2並びに保持部4を一体に連結して形成するには、射出成形型の中で枠部2を形成するウインドゥプレート1の周縁側から液状の合成樹脂をキャビティ空間内に射出充填し、この合成樹脂を凹溝11の連結流路を介して止め具3の装着側に流動させることにより止め具3の基板部3cの外周縁を埋め込んで覆う保持部4を連結部8を介して枠部2と連続させて一体に形成する。このとき、ウインドゥプレート1には枠部2の成形個所に対応する部分には第1の接着剤層6が、保持部4の成形個所に対応する部分には第2の接着剤層7がそれぞれ予め形成されているので、枠部2と保持部とウインドゥプレート1に固着される。一方、連結部8の成形個所に対応するウインドゥプレート1の裏面には接着剤層が形成されていないから連結部8はウインドゥプレート1の裏面とは非接着状態であって、固着されず、また連結部8は後述する取り除きの工程を容易にするために枠部2の厚さよりも薄肉状に成形するのが好ましい。

この樹脂射出成形にあたっては、第3図で示すように、止め具3の基板部3cがコア型10のキャビティ空間側を向き、クリップ部3aがコア型10内に挿入されるように所定位置に止め具3を予め挿入する。このコア型10としては枠部2を形成するキャビティ空間から止め具3をウインドゥプレートに固着するための保持部4を形成するキャビティ空間に連続する凹溝11を連結流路として有するものが用いられ、また、第4図で示すような止め具3

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を位置決め挿入する円筒状の中子12を有するものを用いるとよい。止め具3はコア型10内に組付け挿入した後、第5図で示すようにウインドゥプレート1の裏面がコア型10を向く方向にし、止め具3の基板部3cと重ね合わせるように載置し、更に第6図で示す如くキャビティ型13とで型締めした後、ウインドゥプレート1の端部側から枠部2を形成するキャビティ空間内に液状の合成樹脂を射出して充填する。この枠部形成用キャビティ空間内に充填された液状の合成樹脂は、その一部が枠部2を形成するキャビティ空間から凹溝11の連結流路を通して止め具3用の保持部4を形成するキャビティ空間に流れ込んで充填されることにより枠部2と止め具3用の保持部4とが連結部8で連続させて形成されると共に前述した接着剤層6, 7により、枠部2と保持部がウインドゥプレート1に固着される。

キャビティ空間に射出、充填した液状の合成樹脂を硬化させて枠部2, 保持部4, 連結部8を一体に連結して形成したウインドゥプレート1を型外した後、連結部8をウインドゥプレート1の裏面から取り除けばよい。この取り除きの際には連結部8が接着剤6, 7で固着されていないから、第7図で示すように不透明着色層5を傷付けずに引きち切ることにより容易に除去できる。なお連結部8はカッター等で切れ目を入れれば確実に引きち切ることができる。これにより、枠部2と保持部4とは位置的に離れて非連続に分離され、枠部2と保持部4との間にはウインドゥプレート1の不透明着色層5が露出される。

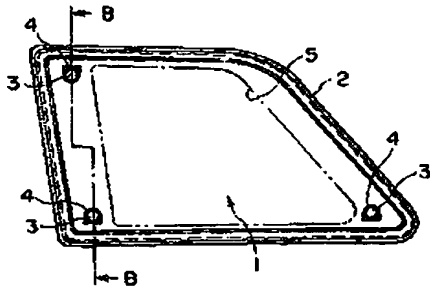
このようにして製造された車輦用ウインドゥは、枠部2と保持部4の位置は射出成形型によって決定されるので、第8, 9図で示すようにウインドゥプレート1の裏面の数個所に止め具3を取り付けても枠部2と共に止め具を保持する保持部4を同時に且つ正確な位置を保って形成できる。しかも、連結部8を容易に除去してウインドゥプレート1の裏面の不透明着色層5を露出させられるから、第10図で示す如く止め具3のクリップ部3aを車体パネルBの止め孔に嵌合係合すると共に、ウインドゥプレート1の裏面と車体パネルBとの間で且つ枠部2と保持部4との間に位置する液状のウインドゥ取付用接着剤Eでウインドゥプレート1の車体パネルBに確りと固着するようである。このとき、保持部4に突起を設ければ、この突起を車体パネルBに取り付けるときの高さ方向の位置決めとして使用することもできる。なお、第10図から明らかなように、ウインドゥプレート1の裏面において、連結部8が存在せず、液状のウインドゥ取付用接着剤Eはウインドゥプレート1の裏面に直接に接しているため、ウインドゥプレート1の裏面と接着剤Eとの間には、従来技術の鋼で述べたような隙間が残存しない。従って、雨水等が枠部2と車体パネルBとの間から入ってきても、止め具3よりも周縁側に位置し接着剤シール材として機能する接着剤Eで遮断され車体パネルB



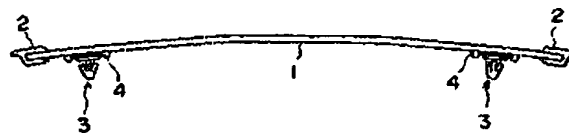
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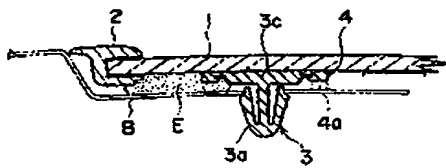
【第8図】



【第9図】



【第10図】



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CLAIMS DETAILED DESCRIPTION DESCRIPTION OF DRAWINGS DRAWINGS

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CLAIMS

(57) [Claim(s)]

[Claim 1] In the manufacture approach of the window for vehicles of contacting the liquid glue for window anchoring in the opaque coloring layer on the rear face of periphery marginal of a window plate directly, and attaching it in it at the aperture opening panel of a vehicle It has the predetermined shape of front flesh-side both sides and periphery shapes of grinding wheel face, and meets in the direction of a periphery of the periphery edge of the transparent window plate (1) which formed the opaque coloring layer (5) in the rear face of a periphery edge by predetermined width of face along the direction of a periphery. To front flesh-side both sides to width of face narrower than the width of face of said coloring layer (5) The first adhesives layer (6), With the rear face of the location separated from the first adhesives layer (6) to the field core side of a window plate (1) within the limits of the width of face of said coloring layer (5), to the stowed position of stops (3) and the second adhesives layer (7) It forms in the location which each adhesives layer (6 7) was discontinuous, and was separated. Stops (3) and a window plate (1) It sets to a predetermined location so that the second adhesives layer (7) may counter with the base of stops (3) within an injection-molding mold (10 13). The KYABIDI space formed in the longitudinal direction along the periphery edge of a window plate (1) is injected and filled up with liquefied synthetic resin within an injection-molding mold (10 13). A frame part (2), The connection passage of the concave (11) formed in the mold face by the side of the rear face of a window plate (1) in some liquefied synthetic resin which forms this frame part (2) is minded. To said stops (3) While making it flow, embedding the periphery of the base of stops (3) at least and forming a wrap attaching part (4) and the connection section (8) in one continuously The frame part (2) and attaching part (4) except the connection section (8) are fixed to a window plate side in each adhesives layer (6 7). The manufacture approach of the window for vehicles characterized by removing the connection section (8) between a frame part (2) and an attaching part (4) from a window plate (1) after that, and making it expose said coloring layer (5).

[Translation done.]

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## DETAILED DESCRIPTION

### [Detailed Description of the Invention]

**Field of the Invention** This invention relates to the manufacture approach of the window for vehicles by which fixed wearing is carried out with adhesives liquefied to aperture opening of a car-body panel.

**Prior art** As this kind of a window for vehicles, conventionally While making the stop hole which equipped with two or more stops the approach in a rear face of the window plate which fabricated the frame part in one to the periphery with synthetic resin, and prepared the stops in aperture opening of a car-body panel carry out insertion engagement What is attached in a car-body panel is known by fixing with the liquefied adhesives for window anchoring which intervene between a window plate rear face and a car-body panel (JP,63-49519,A).

In order to manufacture the window which has the stops mentioned above, it is desirable, if a fastener and the attaching part which attaches other stops firmly are made both to follow shaping of a frame part, and coincidence and it can form in them using the same liquefied synthetic resin as the frame part fabricated to the periphery of a window plate. However, if the connection section is made to remain between a frame part and a fastener attaching part Since the viscosity of the liquefied adhesives E for window anchoring made to intervene between the body panels B of the rear face of the window plate W and aperture opening of a vehicle is comparatively high as shown in Fig. 11, Since Adhesives E turn to the base buttock part of the connection section J which becomes the form embedded into this \*\*\*\*\* and it is hard to die, the minute clearance G remains from a frame part even succeeding a fastener attaching part. Those adhesives E serve also as a sealant, and when the storm sewage which flows into a rear-face side flows into a stops side through a frame part from the front-face side of the window plate W with which Clearance G remains between these adhesives E and the connection section J, they have the fault of advancing into an in-the-car side.

If it fixes with \*\*\*\* with the adhesives which the connection section applies to the shaping part list of a frame part beforehand at the window plate rear face around the wearing part of stops although it is desirable if it removes after following a frame part list in the connection section mentioned above in order to cancel such fault at the attaching part of stops, and one and carrying out resin shaping, it is easily [ after shaping ] unremovable. **Object of the Invention** this invention can remove easily the connection section which continue they , and aim at offer the manufacture approach of the window for vehicles that seal nature with the good time of fix on the body panel of a car body with the liquefied adhesives for window anchoring be securable while it make the attaching part of stops follow a frame part list with injection molding at a frame part and one using liquefied synthetic resin and form it .

**The means for solving a technical problem** In the manufacture approach of the window for vehicles concerning this invention It has the predetermined shape of front flesh-side both sides and periphery shapes of grinding wheel face, and meets in the direction of a periphery of the periphery edge of the transparent window plate which formed the opaque coloring layer in the rear face of a periphery edge by predetermined width of face along the direction of a periphery. To front flesh-side both sides to width of face narrower than the width of face of said coloring layer The first adhesives layer, With the rear face of the location separated from the first adhesives layer to the field core side of a window plate within the limits of the width of face of said coloring layer, to the stowed position of stops and the second adhesives layer It forms in the location which each adhesives layer was discontinuous and was separated. Stops and a window plate It sets to a predetermined location so that the second adhesives layer may counter with the base of stops within an injection-molding mold, and the KYABIDI space formed in the longitudinal direction along the periphery edge of a window plate is injected and filled up with liquefied synthetic resin within an injection-molding mold. A frame part, While making some liquefied synthetic resin which forms this frame part flow to said stops through the connection passage of the concave formed in the mold face by the side of the rear face of a window plate, embedding the periphery of the base of stops at least and forming a wrap attaching part and the connection section in one continuously The frame part and attaching part except the connection section are fixed to a window plate side in each adhesives layer. The

connection section between a frame part and an attaching part is removed from a window plate after that, and it is made for said coloring layer to be exposed.

Operation By the manufacture approach of this window for vehicles It not only can simplify a resin forming cycle, but [ since the attaching part for fixing a frame part and stops on a window plate is made to continue in the connection section and it forms in a frame part and coincidence, ] Although a frame part and an attaching part fix firmly in an adhesives layer on a window plate since the shaping part of an attaching part is made to become independent except for the shaping part of the connection section at the shaping part list of a frame part, respectively in the field of a window plate and the adhesives layer is formed beforehand By not fixing on a window plate, the connection section can be removed easily and can expose an opaque coloring layer.

Example Hereafter, if it explains with reference to Fig. 1-10, it will be as follows.

The window plate 1 which formed the opaque coloring layer 5 in the rear face of a periphery edge along the periphery by predetermined width by glass [ transparent as a suitable example ] or the same product made of synthetic resin as the manufacture approach of this window shown in Fig. 1 is used. While forming a frame part 2 in the periphery in one with injection molding of synthetic resin By forming the attaching part 4 by which resin shaping of [ for fixing the stops 3, such as a fastener, at the rear face of the window plate 1 ] was carried out in the location separated from the frame part 2 to the field core side of the window plate 1 within the limits of the opaque coloring layer 5 It is applied to the car-body panel with these stops 3 and the adhesives for window attachment manufacturing the window which carries out fixed wearing. Although it is desirable that the flow resistance of injection resin applies little reaction injection molding (RIM shaping) for forming the attaching part 4 for stops 3 in this frame part 2 list, the usual injection molding which uses the thermoplastic synthetic resin which replaced with this, was made to carry out heating softening depending on a configuration, and was made liquefied is also applicable. Moreover, the opaque coloring layer 5 which has width and area by printing an opaque paint film on the rear face of the periphery edge of the window plate 1 so that the wearing part of stops 3 may not be viewed from a front-face side by the shaping part list by the side of the rear face of a frame part 2 as mentioned above is formed beforehand. [ \*\*\*\* ] Furthermore, in the shaping part of a frame part 2, the 2nd adhesives layer 7 is discontinuous respectively at the rear face to the wearing schedule part of stops 3, the 1st adhesives layer 6 and a list are made to become independent to front flesh-side both sides with the same adhesives as the adhesives of the 1st adhesives layer, and it is formed in them of spreading.

In addition, as shown in Fig. 1, the stowed position of the stops 3 in the rear face of the window plate 1 is within the limits of the opaque coloring layer 5, therefore the 2nd adhesives layer 7 will also be formed within the limits of the opaque coloring layer 5 corresponding to the location of stops 3. As an example of the stops 3 with which the rear face of the window plate 1 is equipped, as shown in Fig. 2, it is tabular [ which are stopped on the car-body panel B of aperture opening of a car body / support-like clip section 3a and the approximate circle tabular ], and it is desirable to use the fastener which really fabricated substrate section 3c which has two or more through tube 3b and 3b-- around the periphery edge with synthetic resin. Or connectors, such as a nut which connects a fastener and the window plate 1, can also be attached. Moreover, as synthetic resin which forms the attaching part 4 for fixing stops 3 at the rear face of a window plate in this frame part 2 list with injection molding, thermosetting synthetic resin, such as thermoplastic synthetic resin, such as PVC, PVA, EVA, and an ionomer, and PU, can be used. In order to follow one and to form an attaching part 4 in the frame part 2 list Injection restoration of the liquefied synthetic resin is carried out into KYABIDI space from the periphery side of the window plate 1 which forms a frame part 2 in an injection-molding mold. By making this synthetic resin flow to the wearing side of stops 3 through the connection passage of a concave 11, embed the periphery edge of substrate section 3c of stops 3, the wrap attaching part 4 is made to follow a frame part 2 through the connection section 8, and it forms in one. Since the 2nd adhesives layer 7 is beforehand formed in the part corresponding to the shaping part of a frame part 2 on the window plate 1 at the part corresponding to the shaping part of an attaching part 4 in the 1st adhesives layer 6, respectively at this time, it fixes on a frame part 2, an attaching part, and the window plate 1. Since the adhesives layer is not formed in the rear face of the window plate 1 corresponding to the shaping part of the connection section 8, the rear face of the window plate 1 is in the condition of not pasting up, and in order to make easy the process which does not fix and the connection section 8 mentions later and to remove, it is on the other hand, more desirable [ the connection section 8 ] than the thickness of a frame part 2 to fabricate in the shape of thin meat.

In this resin injection molding, as shown in Fig. 3, substrate section 3c of stops 3 turns to the KYABIDI space side of the core mold 10, and stops 3 are beforehand \*\*\*\*(ed) in a predetermined location so that clip section 3a may be inserted into the core mold 10. It is good to use what has the core 12 of the shape of a cylinder which carries out positioning \*\*\*\* of the stops 3 as what has the concave 11 which follows the KYABIDI space which forms the attaching part 4 for fixing stops 3 on a window plate from the KYABIDI space which forms a frame part 2 as this core mold 10 as connection passage used and shown in Fig. 4. After attaching in the core

mold 10 and \*\*\*\*(ing), as shown in Fig. 5, the rear face of the window plate 1 carries out the core mold 10 in the direction to turn to, stops 3 lay it so that it may pile up with substrate section 3c of stops 3 and it may be put together, and as further shown in Fig. 6, after mold clamp carrying out with the cavity mold 13, they are injected and filled up with liquefied synthetic resin from the edge side of the window plate 1 in the cavity space which forms a frame part 2. The liquefied synthetic resin with which it filled up in this cavity space for frame part formation By flowing in and filling up the cavity space in which the part forms the attaching part 4 for stops 3 through the connection passage of a concave 11 from the cavity space which forms a frame part 2 A frame part 2 and an attaching part fix on the window plate 1 by the adhesives layers 6 and 7 mentioned above while the frame part 2 and the attaching part 4 for stops 3 made it continue in the connection section 8 and were formed. What is necessary is to stiffen the liquefied synthetic resin with which cavity space was injected and filled up, and just to remove the connection section 8 from the rear face of the window plate 1, after carrying out the window plate 1 which continued and formed a frame part 2, an attaching part 4, and the connection section 8 in one mold outside and carrying out it. the \*\* which does not damage the opaque coloring layer 5 as shown in Fig. 7 since the connection section 8 has not fixed with adhesives 6 and 7 in case [ this ] it removes -- lengthening -- \*\*\*\*\* -- it is easily removable with things. in addition -- if the connection section 8 puts in a break by a cutter etc. -- certain -- lengthening -- \*\*\*\*\* -- things are made. Thereby, a frame part 2 and an attaching part 4 are left in location, it dissociates discontinuously, and the opaque coloring layer 5 of the window plate 1 is exposed between a frame part 2 and an attaching part 4.

Thus, since it is determined by the injection-molding mold, as shown in Fig. 8th [ the ] and 9, even if the manufactured window for vehicles attaches stops 3 in several places of the rear face of the window plate 1, with a frame part 2, it maintains a simultaneous and exact location and, as for the location of a frame part 2 and an attaching part 4, can form the attaching part 4 holding stops. And since the connection section 8 is removed easily and the opaque coloring layer 5 of the rear face of the window plate 1 is exposed, while stopping as shown in Fig. 10 and carrying out attachment engagement of the clip section 3a of an ingredient 3 at the stop hole of the car-body panel B It can fix with \*\*\*\* on the car-body panel B of the window plate 1 with the liquefied adhesives E for window attachment located between a frame part 2 and an attaching part 4 while the rear face and the car-body panel B of the window plate 1. If a projection is prepared in an attaching part 4 at this time, it can also be used as positioning of the height direction when attaching this projection in the car-body panel B. In addition, since the connection section 8 did not exist but the liquefied adhesives E for window attachment are directly in contact with the rear face of the window plate 1 in the rear face of the window plate 1 so that clearly from Fig. 10, between the rear face of the window plate 1, and Adhesives E, a clearance which was stated in the column of the conventional technique does not remain. Therefore, even if storm sewage etc. enters from between a frame part 2 and the car-body panels B, it is intercepted with the adhesives E which are located in a periphery side and function as adhesion-cum-a sealant rather than stops 3, and does not advance into the stop hole side of the car-body panel B.

effect of the invention while according to the manufacture approach of the window for vehicles which start this invention like the above being able to form a frame part and stops in an exact location since the connection section be easily removable after make a window plate continue in the connection section and form a frame part and the attaching part holding stops in it, in case it be use attach in a car body panel, seal nature can be keep good and it can fix firmly on a car body panel.

[Translation done.]

**\* NOTICES \***

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- 3.In the drawings, any words are not translated.

**DESCRIPTION OF DRAWINGS**

**[Brief Description of the Drawings]**

The partial perspective view by the side of the rear face in the condition that Fig. 1 carried out resin shaping of the attaching part of stops by the approach concerning this invention in the frame part list at the window plate, The perspective view showing an example of the stops for which Fig. 2 is used by this approach, the fragmentary sectional view in the condition that Fig. 3 \*\*\*\*(ed) stops in the injection-molding mold used by this approach, The A-A line cross section [ in / in Fig. 4 / Fig. 3 ], the explanatory view of the process to which Fig. 5-7 carries out injection molding of the attaching part holding stops to a frame part list by this approach, The rear-face Fig. of the window for vehicles which Fig. 8 manufactured by this approach, a B-B line sectional view [ in / in Fig. 9 / Fig. 8 ], the explanatory view showing [ 10 ] the attachment condition of the window for the said vehicles, and Fig. 11 are explanatory views showing the technical problem which this invention tends to solve.  
1: 10 A window plate, 2:frame part, 3:stops, 4:attaching part, 5:coloring layer, 6, 7:adhesives layers, 8:connection section, 13 : injection-molding mold.

[Translation done.]

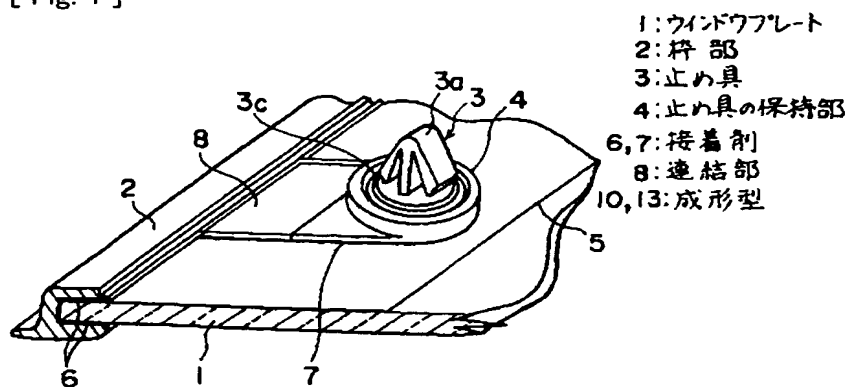
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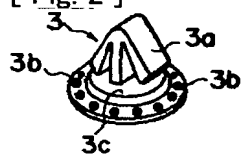
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DRAWINGS

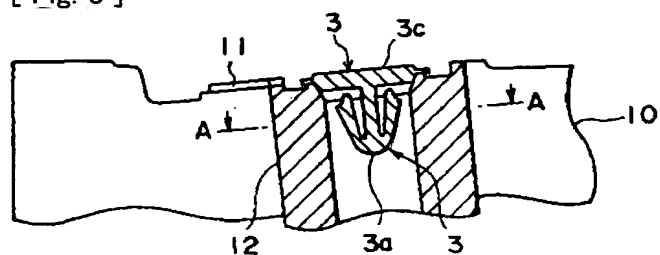
[ Fig. 1 ]



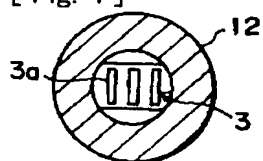
[ Fig. 2 ]



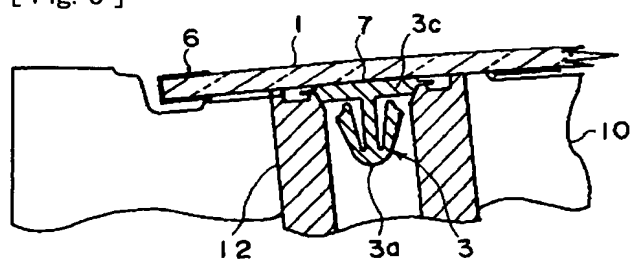
[ Fig. 3 ]



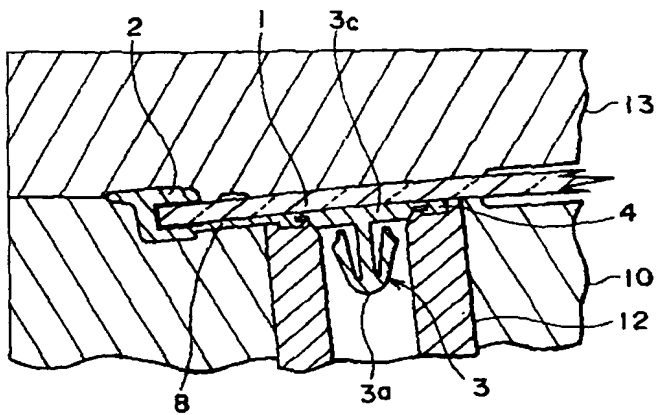
[ Fig. 4 ]



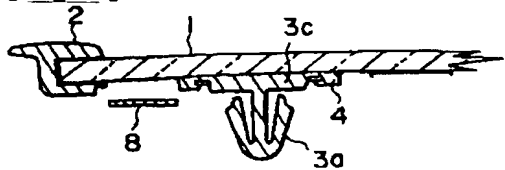
[ Fig. 5 ]



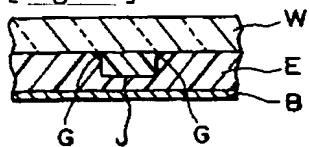
[ Fig. 6 ]



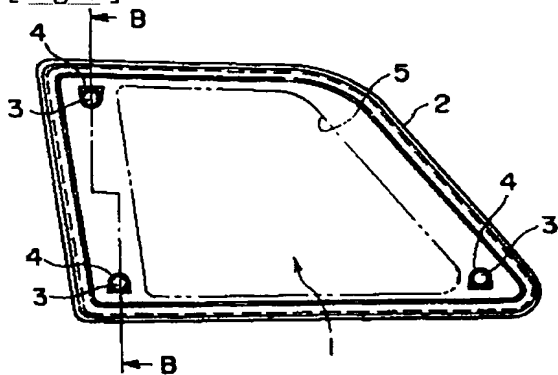
[ Fig. 7 ]



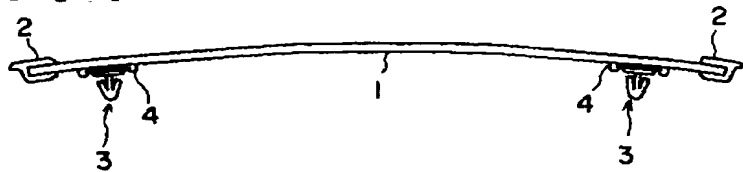
[ Fig. 11 ]



[ Fig. 8 ]



[ Fig. 9 ]



[ Fig. 10 ]

